

H.G. McGonegals' Improvement in Wood Pavement.



Fig. 1.

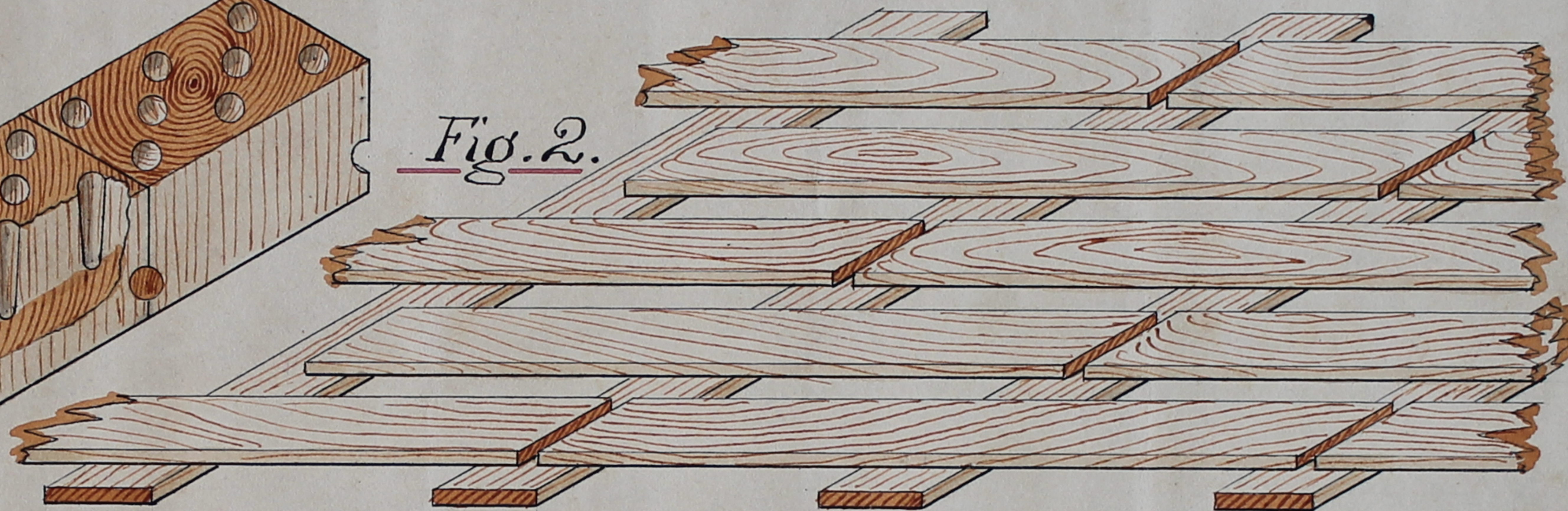


Fig. 2.

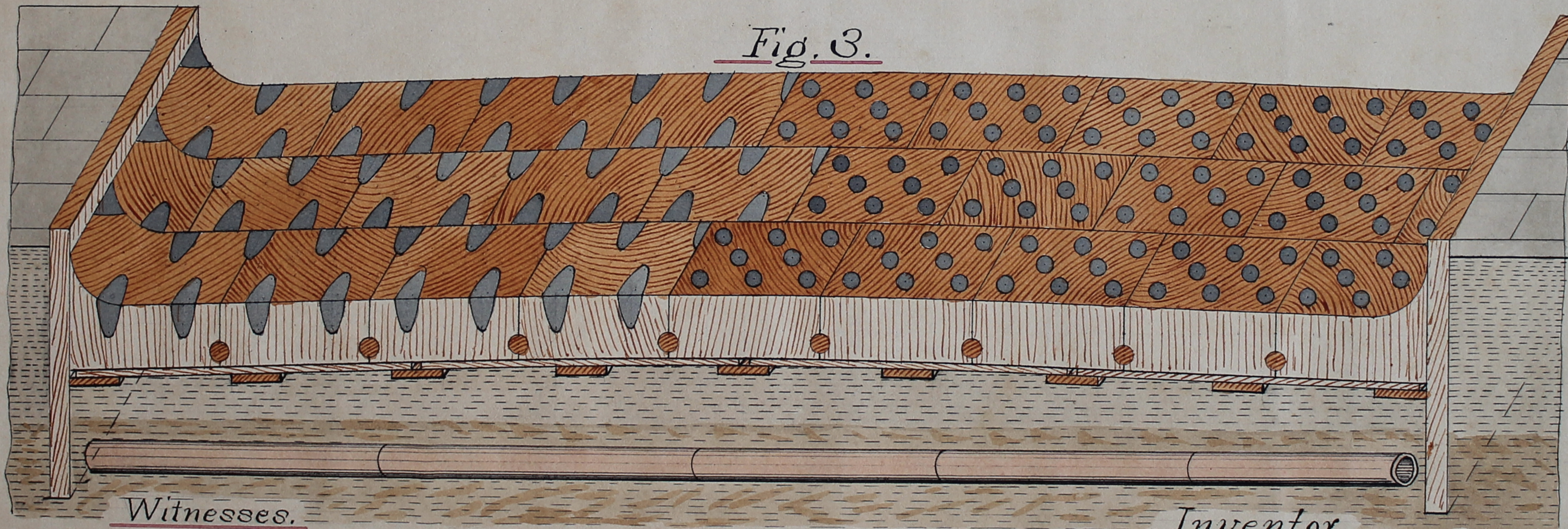


Fig. 3.

Witnesses.

Inventor.

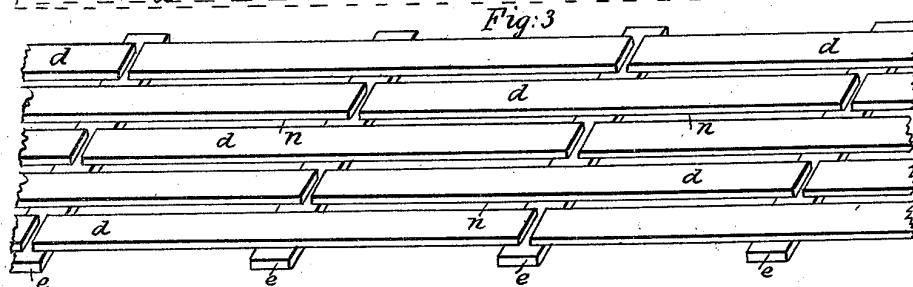
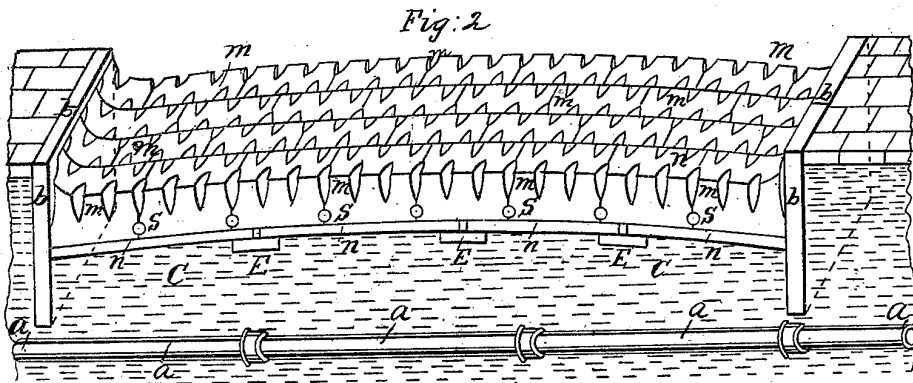
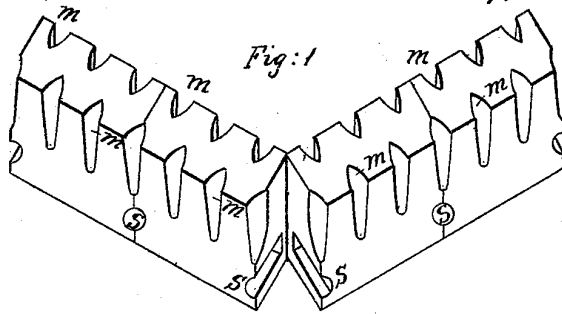


H.G. Mc Gonegal.

Wood Pavement.

N<sup>o</sup> 86,025.

Patented Jan. 19, 1869.



Witnesses

*J. C. Theaker*

Inventor

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# UNITED STATES PATENT OFFICE.

HENRY G. MCGONEGAL, OF NEW YORK, N. Y.

## IMPROVED WOOD PAVEMENT.

Specification forming part of Letters Patent No. 86,025, dated January 19, 1869.

*To all whom it may concern:*

Be it known to all men that I, HENRY G. MCGONEGAL, of the city, county, and State of New York, have invented a new and Improved Method of Constructing Wood Street-Pavements; and I do hereby declare that the following is a full and exact description of the same, the accompanying drawings, with letters marked thereon, having reference thereto.

Make a proper grading of the street, leaving a hard, smooth surface in the shape of the proposed street-surface when completed. In this graded surface dig trenches, from one side of the street to the other, and set therein tiling, of any desirable size and kind, through which all gas and water pipes may be laid. Two or three such tilings may be laid upon each block of two hundred feet, Figure 2, *a a*. This arrangement will obviate the frequent necessity of removing the pavement for repairs of these pipes, or laying new ones, except at the ends of the tiling, where special arrangements may be made for such removal.

Upon the sides of the street set curbs of wood instead of stone, (now used,) Fig. 2, *b b*. For this purpose, timber of any desirable size (as four to six inches thick by ten, twelve, or fifteen inches wide) may be used, cutting the pieces about three feet long. These pieces should be set firmly into the earth, upon the sides of the street, with the grain perpendicular to the street-surface, Fig. 2, *b b*. The tops of said curbs may be covered with iron or other material, firmly fastened, if desirable, in streets where there is heavy trucking.

Upon the graded surface place an even layer of sand, six to twelve inches in depth, uniform in thickness, and rolled or otherwise firmly packed together, Fig. 2, *c c*. Upon this layer of sand place a complete flooring of plank. Cut the boards or plank into segments, from four to six feet in length, and lay them with the grain crosswise of the street-surface, breaking joints lengthwise of the street, Fig. 3, *d d*, placing a cross-tie of planking beneath, and for the support of the segment ends, Fig. 3, *e e*. These segments should also be laid with intervening spaces, from two to three inches in width, upon each and all sides of each segment, Fig. 3, *n n*. The flooring constructed in this manner will permit a simple and easy removal and replacement without in

any way injuring the original structure, and the pieces laid with the intervening or sand spaces will permit all water to pass immediately and directly into the sand beneath, thereby preventing the accumulation of water in low parts of the streets, undermining the blocking, and thereby injuring the pavement, and also preventing the water from passing upon the planking and beneath the flagging to basement-walls, and thereby rendering basements and cellars always damp and unhealthy, and often untenable and useless. Upon the flooring thus laid set blocks of wood prepared in the following manner: From timber of any desirable size (four to six inches thick by ten to eighteen inches broad) cut blocks six inches long, or thereabout. Upon the opposite sides of these blocks make grooves or furrows in the direction of the grain of the wood. These furrows should be semi-elliptical in form, with the base at the surface end of the block, and the apex (of a blunt cone) from four to five inches along the side of the block, and the base about one and a quarter inch across at the base, leaving a wood space of about three and a half inches between any two consecutive grooves, Figs. 1 and 2, *m m*. These grooves should cut away about one-sixth of the timber, and may extend from end to end of the block, so as to allow water to pass down to the planking, when properly laid, Fig. 2, *m m*. The special intent and purpose of this grooving are to give free vent and room for the expansion of the woody fiber when influenced by moisture, which device will satisfy the same.

Upon the opposite edges of each block may be cut semi-perforations, partially or wholly across, Figs. 1 and 2, *s s*. These blocks, when laid, will exhibit a row of symmetrical holes, Fig. 2, *s s*. The blocking should then be set with the grain perpendicular to the street-surface, with the base of the furrows upward, and in such a manner as to adapt the woody surface of one row of blocks to the grooved surface of the adjoining row, Fig. 2, *m m*. The holes for the keys should then be filled by driving in closely-fitting keys.

When removal is desirable, introduce a thin chisel at the joint between any two blocks, and thus split any two consecutive keys, when any number of the blocks can be removed, and as readily the planking beneath will be

removed and also replaced, for any purposes whatever.

All the woody material used should be dipped into hot coal-tar and asphalt, or any other preserving admixture, previous to laying the same.

I claim as my invention—

1. A wooden pavement, when the blocks composing the same are grooved on their sides, substantially as shown and described.

2. The combination of the planking under the pavement, when put down, with intervening spaces on each side and end of each piece, with the wooden pavement composed of grooved blocks, as above, substantially as set forth.

HENRY G. MCGONEGAL.

Witnesses:

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